Supplemental Table 1: Assessment of steroid toxicity

1) Growth retardation: height >2 standard deviations below normal according to Tanner et al* in the absence of other causes of short height;
2) Cataract diagnosed by an ophthalmologist;
3) Osteoporosis: Z score >2 standard deviations below age-matched normal bone mass plus one spontaneous bone fracture at dual-energy X-ray absorptiometry scan-DXA

* Tanner, JM, Whitehouse, RH: Clinical longitudinal standards for height, weight, height velocity, weight velocity, and stages of puberty. *Arch Dis Child* 51**:** 170-179, 1976

Supplemental Table 2: Height (z-score) in different patient cohorts

Patient N°	Height z-score T_0	Height z-score T_{12}
Rituximab		
1	0	0
2	0.5	0.5
3	-1	-1
4	-0.5	0.5
5	0	0
6	0.5	0.5
7	NA	NA
8	0	0
9	NA	NA
10	-1.5	-1.5
11	-0.5	-0.5
12	0	-0.5
13	-2	-2
14	0.5	0
15	1	1
Control arm		
1	-1.5	-1.5
2	0	0
3	0.5	0
4	-0.5	-0.25
5	1.5	1.5
6	-2	-1.5
7	1.25	NA
8	NA	NA
9	1	1
10	1	-0.25
11	1	NA
12	-1	-0.5
13	0	1
14	NA	NA
15	0	NA

Supplemental Table 3: Sensitivity analyses: Proteinuria at three months (primary endpoint; ANCOVA model)

Per protocol analysis

	Mean (mg/m^2/day)	*Mean ratio*	*Per cent change*
Prednisone group	43 (2 to 893)	Reference	Reference
Rituximab group	23 (1 to 430)	0.54 (0.16 to 1.87)	-46% (-84 to +87%)

Missing value replaced with the highest proteinuria value in the rituximab arm

	Mean (mg/m^2/day)	*Mean ratio*	*Per cent change*
Prednisone group	47 (1 to 923)	Reference	Reference
Rituximab group	27 (1 to 457)	0.58 (0.17 to 1.91)	-42% (-83 to +91%)

Missing value replaced with the lowest proteinuria value in the rituximab arm

	Mean (mg/m^2/day)	*Mean ratio*	*Per cent change*
Prednisone group	37 (1 to 742)	Reference	Reference
Rituximab group	18 (1 to 319)	0.50 (0.15 to 1.68)	-50% (-85 to +68%)

Supplemental Table 4

Months to reconstitution of normal count of CD19/CD20 (>2.5%) after rituximab infusion in children with SDNS and IgG serum levels three months after the rituximab infusion.

PTID	Months to reconstitution		IgG (mg/dl)
	CD19	CD20	
1-	7	7	855
2-	7	7	580
3-	6	6	607
4-	5	5	502
5-	4	4	514
6-	4	4	363
7-	6	6	333
8-	12	12	524
9-	NA	NA	NA
10-	4	4	550
11-	6	6	540
12-	4	4	NA
13-	8	5	858
14-	4	5	689
15-	5	6	448

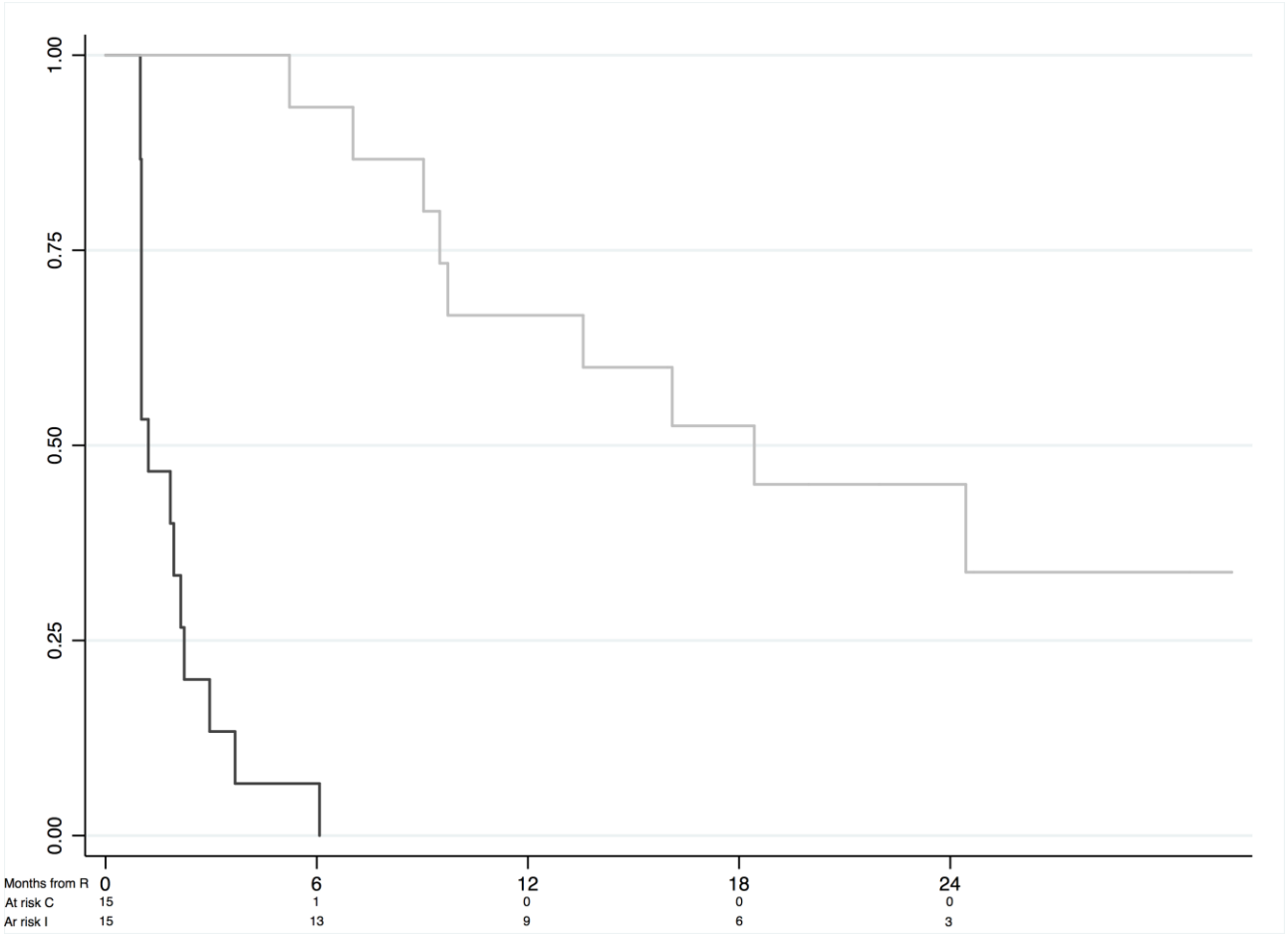
Supplemental Table 5: Adverse event checklist for principal investigators

EARLY (within hours)
Angioedema, hypotension /hypertension
Back pain, myalgia
Edema, Flushing, asthenia, chills, dizziness, fever, headache
Pruritus, rash
Cough, bronchospasm, dyspnoea, sinusitis, rhinitis, throat irritation
Abdominal pain, diarrhoea, nausea, vomiting

FOLLOWUP (days following infusion)
Anemia, leukopenia, lymphopenia, neutropenia, thrombocytopenia
Night sweats
Arthralgia
Hypogammaglobulinaemia
Neutropenia

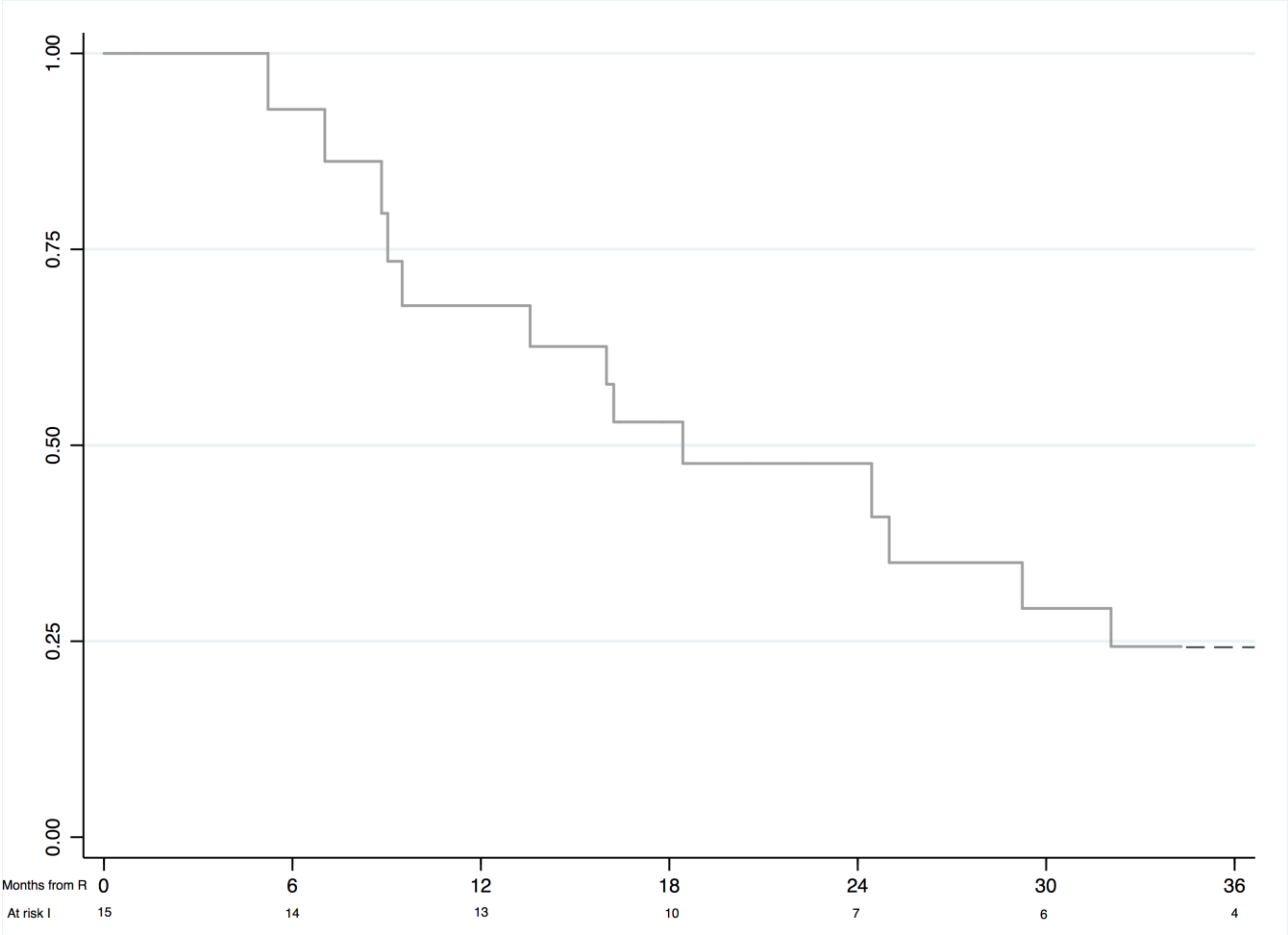
OTHERS

Supplemental Figure 1: Relapse-free survival by treatment arm (time-to-first-relapse analysis): prednisone (control; dark grey) and rituximab (intervention; light grey).



'R' indicates randomization; 'C' indicates in the comparator arm; and 'I' indicates in the intervention arm.

Supplemental Figure 2: Relapse-free survival in children assigned to rituximab (time-to-repeated-relapse analysis).



R' indicates randomization; and 'I' indicates in the intervention arm.